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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,172	03/31/2000	HANNU HAKALAHTI	02849.0115	4754

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EXAMINER

NGUYEN, BRIAN D

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/462,172

Applicant(s)

HAKALAHTI ET AL.

Examiner

Brian D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 10/28/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Finland on 04 July 1997. However, the certified copy of the Finish application is missing. The applicant is requested to provide a new certified copy of the Finish application in responding to this Office action.

Information Disclosure Statement

2. The information disclosure statement filed 3/31/2000 has been placed in the application file, but the information referred to therein has not been considered because the following publications are missing: WO 95/33346, 2 288 300, 0 719 066, 2,057,544, and S. Nikkila, "Automation Tulevat Tietoliikennetkaisu" prosessori, Vol. 2, pgs 27-29, 31-33, 1997. The applicant is requested to provide a copy of each of the publications in responding to this Office action.

Claim Objections

3. Claims 1-13 are objected to because of the following informalities:

Claim 1, line 5, it is suggested to change "the terminal" to ---the terminals---.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 6, 8-11, 13-14, 19, 21-24, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Chung et al (6,359,871).

Regarding claim 1, Chung discloses a data transmission method for enclosed environments, the data transmission method being used in a data transmission system comprising one or more terminals (17 of figure 1) and a network comprising at least one base station (13), a monitoring station (15) and a backbone network, the data transmission system having a radio connection between the terminal and the base station and a bi-directional connection from the monitoring station to one or more working machines (see col. 1, lines 38-41) via the terminals, each of which are coupled to a working machine, comprising transmitting data between the monitoring station and the terminals digitally (see col. 2, lines 36-39), and controlling the one or more working machines are controlled from the monitoring station (see col. 1, lines 38-41) by teleoperation substantially in real time (see col. 7, lines 57-60) by a deterministic data transmission protocol in which the data transmission delay is within predetermined limits.

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Regarding claim 6, Chung discloses transmitted messages are forwarded to all units connected to the network (broadcasting) (see col. 23, lines 33-40).

Regarding claims 8-10, Chung discloses the information types include image, voice, data and are transmitted in packets (see col. 2, lines 29-39).

Regarding claim 11, Chung discloses data compression (see col. 2, lines 36-39).

Regarding claim 13, Chung discloses a graphical user interface (display) (see col. 28, lines 46).

Regarding claims 14, 19, 21-24, and 26, claims 14, 19, 21-24, and 26 are system claims that have substantially all the limitations of the respective method claims 1, 6, 8-11, and 13, thus is subject to the same rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3, 5, 7, 15-16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (6,359,871) in view of Ota (6,034,966).

Regarding claim 2, Chung does not disclose the multicasting. However, Ota discloses the multicasting (see col. 1, lines 64-66). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to multicast messages as taught by

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Ota in the system of Chung with the motivation being to forward the messages to multiple destinations.

Regarding claims 3 and 5, Chung does not disclose an ATM network and centralized control. However, Ota discloses an ATM network with the centralized control (see abstract and col. 6, lines 35-37). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the ATM network as taught by Ota in the system of Chung with the motivation being to select the best well known communication method, such as the ATM method, for the system based on how the design is used.

Regarding claim 7, Chung does not disclose the use of spread spectrum signaling. However, Ota discloses the use of spread spectrum signaling (see col. 9, lines 4-7). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the spread spectrum as taught by Ota in the system of Chung with the motivation being to increase the number of channels available to the system.

Regarding claims 15-16, 18, and 20, claim 15-16, 18, and 20 are system claims that have substantially all the limitations of the respective method claims 2-3, 5, and 7. Thus is subject to the same rejection.

8. Claims 3-4 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (6,359,871) in view of Green et al (5,687,324).

Regarding claims 3-4, Chung does not specifically disclose the ATM network operates on the multicasting principle by the ATM switches operating independently without control. However, Green discloses an ATM network that operates on the multicasting principle by the ATM switches operating independently without control (see abstract and col. 3, lines 56-60).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to operate on the multicasting principle by the ATM switches operating independently without control as taught by Green in the system of Chung with the motivation being to select the best method, from a plurality of well known methods, based on how the design is used.

Regarding claims 16-17, claim 16-17 are system claims that have substantially all the limitations of the respective method claims 3-4. Thus is subject to the same rejection.

9. Claims 11-12 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al (6,359,871) in view of Astrin (6,026,082).

Regarding claims 11-12, Chung does not specifically disclose dynamic compression. However, Astrin discloses the dynamic compression (see col. 2, lines 34-42). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dynamic compression method as taught by Astrin in the system of Chung with the motivation being to maintain the transmission quality in addition to effectively use of the system bandwidth.

Regarding claims 24-25, claims 24-25 are system claims that have substantially all the limitations of the respective method claims 11-12. Thus is subject to the same rejection.

Response to Arguments

10. Applicant's arguments filed 10/28/03 have been fully considered but they are not persuasive.

The applicant argues that Chung's network communication is based on frames, providing for a total super frame length of 480 milliseconds which corresponds to delay of Chung's network. That long delay cannot be accepted in a system with real time controlling/monitoring, and it is submitted the system in Chung is not a real-time. This argument is not persuasive because the system in Chung is substantially in real time as the claimed invention. Note that in a packet switching network, the communication is real time or not depending on priority of the transmission and the type of protocol use in the system. The applicant also argues that in Chung the base station form a ring structure. It is not understood how this kind of system can provide a deterministic data transmission protocol as claimed; The ring structure provides only one directional data transfer resulting in an undefined delay, it appears the data transmission protocol in Chung cannot be deterministic as defined in the subject application on page 9, lines 19-24 and required in every claim. Additionally, the system in the subject matter application is not based on a master-slave principle. These arguments are not persuasive because the claims do not provide specific network configuration; specific protocol, or specific transmission delay. In addition, it is a matter of choice to choose one network configuration, protocol, or transmission delay over the others. The applicant also argues that the examiner fails to show where in Ota or Green or Astrin state the suggestion or motivation for combining the two references. These are arguments are not persuasive because the features such as multicasting, ATM network, spread spectrum, dynamic compression are all well known. People of ordinary skill in the art can apply those well-known features to meet specific needs.

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Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (703) 305-5133. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

BN
11/15/03



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